

As
Cmt
has a thickness of $\lambda/4n_{\text{AlN}}$, λ is an oscillation wavelength of the surface-emitting semiconductor element of Fig. 5, and n_{GaN} and n_{AlN} are the refractive indexes of GaN and AlN at the oscillation wavelength λ , respectively. The lowest sublayer of the Bragg reflection film 84 is an AlN layer.

IN THE CLAIMS:

Please add claims 9-13 as new claims:

9. (New) The laser apparatus according to claim 1, wherein said first laser light enters said resonator from a first surface of said first mirror which is opposite the active layer to excite the surface-emitting semiconductor element.

10. (New) The laser apparatus according to claim 1, wherein said second mirror is physically separated from said surface-emitting semiconductor element by an air gap.

11. (New) The laser apparatus according to claim 10, wherein said first laser light enters said surface-emitting semiconductor element through said air gap.

12. (New) A laser apparatus comprising:
a semiconductor laser element which emits first laser light having a first wavelength;
a surface-emitting semiconductor element which is excited with said first laser light, emits second laser light, and has an active layer and a first mirror arranged on one side of said active layer;

a second mirror which is arranged outside said surface-emitting semiconductor element so that said first and second mirrors form a resonator in which said second laser light resonates; and

a modulation unit which modulates said surface-emitting semiconductor element;

AMENDMENT UNDER 37 C.F.R. § 1.111
U. S. Application No. 09/779,586

wherein said surface-emitting semiconductor element has a pn junction, and said modulation unit modulates the surface-emitting semiconductor element by varying a voltage applied to the pn junction.

13. (New) The laser apparatus according to claim 12, wherein said second laser light has a second wavelength which is longer than said first wavelength.